



Department of Animal Biosciences (ABSc)

Formerly: Department of Animal and Poultry Science





Our Vision



- *We are global leaders in innovative education, research and technology transfer in animal biosciences.*



Research Themes



- Sustainable and ethical animal production, care and use
 - Increase efficiency of using resources to provide safe and nutritious animal products for consumers, and to improve animal well-being
- High quality and value-added animal products
 - Production of nutritionally enriched or tailored animal products to improve human and animal health and increase producer profit
- Animal models for human metabolism, nutrition and health
 - Use of animal models for studying human health and physiology





Disciplines



- Animal Behaviour and Welfare
 - Livestock, poultry, captive / lab animals, fish, horse
- Animal Breeding and Genetics
 - Dairy, beef, swine, sheep, goats, fish, turkey
- Animal Nutrition
 - Dairy, beef, swine, poultry, fish, dog, cat, horse
- Animal Physiology
 - Cattle, swine, chickens, fish, horse



People



- Faculty
 - 27 regular faculty
 - 5.5 federal / provincial/industry co-locations
 - 13 active associated faculty
- Graduate Students
 - About 150 grad students
 - ~1/3 M.Sc. Thesis, ~1/3 M.Sc. Coursework, ~ 1/3 Ph.D.
- Staff
 - 12 full and part-time, excluding facility management



Status Report



Most student / research intensive Department within the University of Guelph

- **Undergraduate Teaching (W17)**
 - 750 BSc ABIO
 - 93 BSc AGR
 - 104 BBRM equine
- **Graduate Teaching (W17)**
 - 37 PhD (16 International)
 - 66 MSc thesis (9 International)
 - 48 MSc course work (1 International)
- **Research**
 - About \$6 million annually, high publication output



Core competencies of faculty

Nutrition
Incl. Modelling

Physiology

Behaviour &
welfare

Breeding,
Genetics,
Genomics

Animal
product
quality

- Fan
- Bureau
- De Vries
- Cant
- Osborne
- France
- **Shoveller**
- Kiarie
- **Wood**

- Li
- Bedecarrats
- Squires
- Karrow
- Fan
- **de Souza**
Ribeiro
- **Pearson**

- Widowski
- Mason
- **Harlander**
- De Vries
- Bergeron
- Merkies

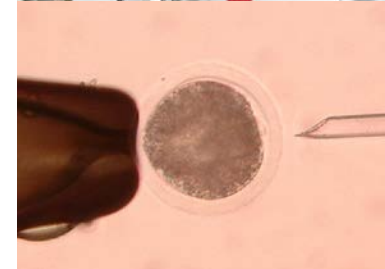
- Schenkel
- Karrow
- Robinson
- **Baes**
- **Canovas**

- Mandell
- Squires
- Cant
- Bureau
- Kiarie
- Moccia
- **Wood**

Research facilities

- Dairy, beef, poultry, swine, equine, sheep, aquaculture 'animal production' research units*
- Flexible animal housing unit (small scale)
- Animal metabolism units
- Isolation units (infectious diseases)
- CFIA licensed abattoir and meats laboratory
- Lab Services Div, including Animal Health Lab*
- Science Complex: genomics, mass spectroscopy, etc.
- Collaborating institutions and laboratories
- Commercial farms

* Supported largely by the \$70M/yr OMAFRA & Univ. of Guelph agreement





Elora Beef



New Elora Dairy



Arkell Feedmill, Swine, Poultry, Equine



Alma Aquaculture

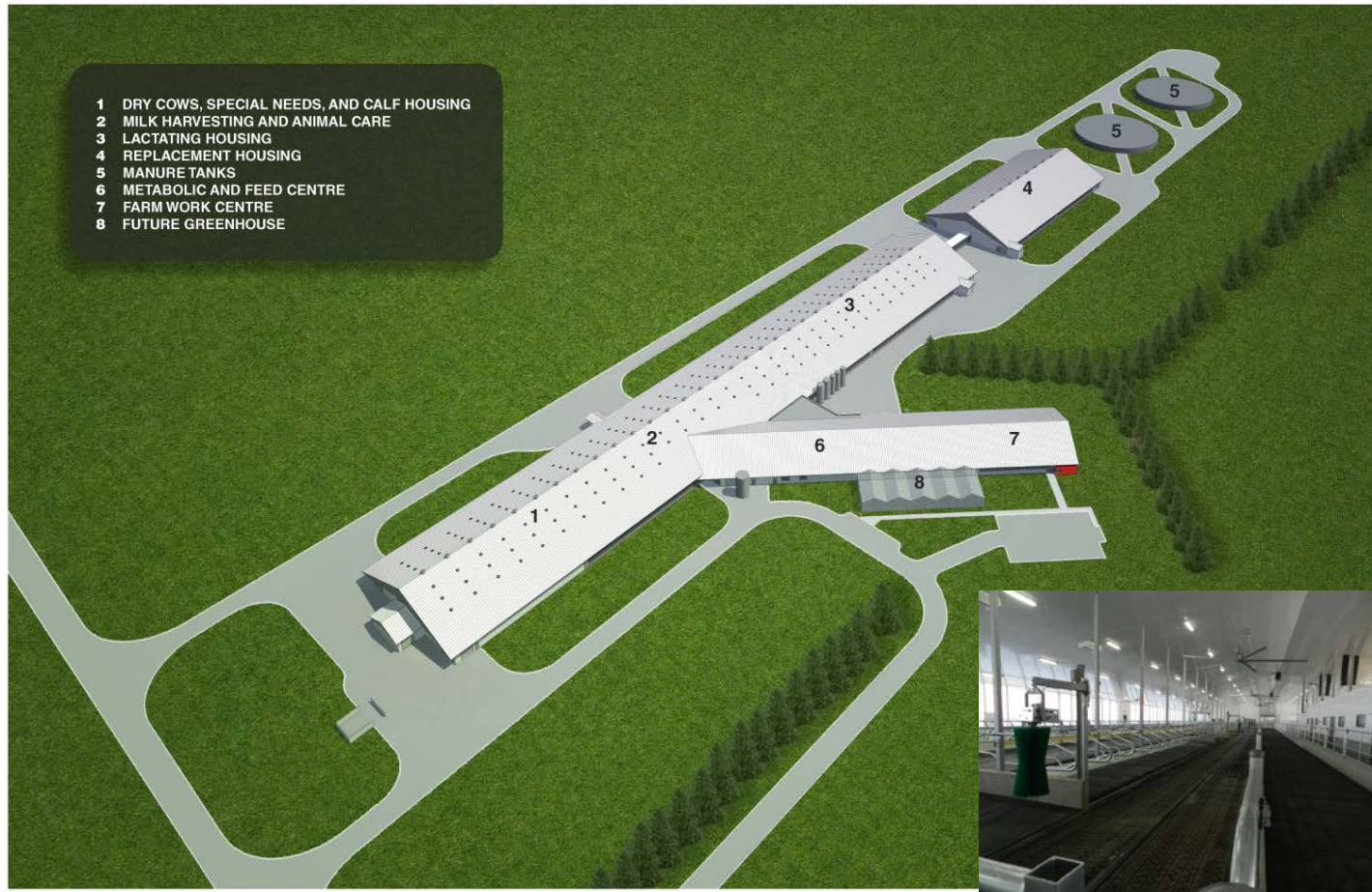


Ponsonby Sheep



Ponsonby General Animal Facility

New Livestock Research Innovation Centre- Dairy Phase





New Initiatives



- Now upgrading our abattoir and meat lab (\$2.5M)
 - only CFIA licensed abattoir in a Canadian University
- Canada First Research Excellence Fund (CFREF)
 - \$78M project 'Food from Thought'
 - Livestock theme focused on 'Precision Agriculture' and 'Big data'
- Canada Foundation for Innovation (CFI) application
 - \$25.5M to upgrade our animal holding and analytical facilities on campus



Perspective



- **After several years of cutbacks, there is real momentum in the Department of Animal Biosciences (ABSc)**
 - New faculty, pursuing new funding opportunities and collaborations
- **Agri-Food is again being recognized as of economic importance and is part of new government and university research priorities**
- **ABSc is committed to work with key organizations such as yours to support a variety of R&D efforts in Ontario and beyond**